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University of Toronto.

SCHOOL OF CIVIL ENGINEERING.

1871.

The requisites for obtaining the Diploma in Civil Engineering are as follows :

Having produced satisfactory certificates of good conduct.

Having Matriculated in the Faculty of Law ; or having passed the Examination for the First Year in the Faculty of Arts ; or having passed the Examination appointed for Matriculation in the School of Civil Engineering.

Being of the standing of two years from Matriculation.

Having passed, in each of those years, an examination in the subjects prescribed for such year in the course appointed for Students of Civil Engineering.

EXAMINATIONS.

The Annual Examinations for Matriculation will be held in the latter part of the month of September.

The Examinations for the First and Second Years will be held in the month of May.

Notice will be given annually in January of the day when the Examinations will commence.

Every Student who proposes to present himself at any Examination is required to send to the Registrar, at least three weeks before the day appointed, a paper (according to a printed form which will be provided), stating his standing, and whether he is a Candidate for Honors or otherwise.

FEEES.

For Matriculation or Entrance Four Dollars.

For the Diploma..... Six Dollars.

PRIZES.

A Prize of the value of sixteen dollars in Books will be given to the Student who, at the Examination of the First or of the Second Year, has been placed first in the First Class of Honors.

SUBJECTS OF EXAMINATION.

MATRICULATION.

MATHEMATICS.

Arithmetic.
Algebra. (Colenso's).
EUCLID, Bb. I., II., III., IV., VI., and definitions of B. V. (Colenso's Ed. of Simpson's).
Nature and use of Logarithms. (Cherriman's).
Plane Trigonometry, as far as the solution of plane triangles. (Cherriman's).

ENGLISH.

Grammar and Composition.

FRENCH.

Grammar and Exercises. (DeFiva's).
VOLTAIRE, Histoire de Charles XII., Bb. I., II., III.
CORNEILLE, Horace, Act IV.

HISTORY AND GEOGRAPHY.

Outlines of British History to the present time.
Outlines of Modern Geography.
Geography of the British Empire, including her Colonies.

DRAWING.

Drawing from a copy.

FIRST YEAR.

MATHEMATICS.

EUCLID, XI, P. 1 to 21.
Statics and Dynamics. (Cherriman's).
Astronomy. (Main's in Weale's series).

ENGLISH.

Composition.
Orthographical, Etymological, and Rhetorical forms of the English Language. (Fowler's English Language, Parts III., IV., VII.)

FRENCH.

Grammar.
Translation from English into French.
WIRZ, Construction de chemins de fer, Chap. I.-X., inclusive. (Roret's series).

CHEMISTRY.

Chemistry and Chemical Physics. (Fownes's Elements of Chemistry; Lardner's Handbook of Heat and Electricity, or Miller's Chemical Physics).

MINERALOGY AND GEOLOGY.

The properties and distinctive characters of the commonly occurring minerals and metallic ores.
The structural characters, conditions of occurrence, and classification of rocks generally.
Geological phenomena now in action, with theory of springs, currents, tides, winds, &c. (Dana's Manual of Mineralogy; Lyell's Elementary Geology; Buff's Physics of the Earth; Synopsis of Professor Chapman's Lectures)

DRAWING.

Drawing from a model.
Perspective. (Pyne's, Weale's Rudimentary Treatises).

SURVEYING AND GEODESY.

Construction, and use of field and office instruments.
Surveying operations.
Mensuration of areas and solids.
Levelling operations; cross sections.
Method of conducting a trigonometrical survey, and of finding the latitude and longitude, and variation of the compass.
(Simms's Mathematical Instruments, and Treatise on Levelling; Gillespie's Land Surveying; Williams's Practical Geodesy; Practical Mathematics, Chambers's Educational Course).

SECOND YEAR.

MATHEMATICS.

Hydrostatics (Chambers's Educational Course).

Optics. (Chambers's Educational Course).

Acoustics. (Chambers's Educational Course).

Descriptive Geometry. (Heather's).

CHEMISTRY.

Applied Chemistry. (Knapp's Technology).

MINERALOGY AND GEOLOGY.

Physical and Chemical character of minerals, including the applications of Crystallography, and the construction of Chemical Formulas.

Classification and description of minerals.

General principles of Geology fully considered.

Geology of North America, with rock formations, and economic minerals of Canada considered in detail.

(Dana's System of Mineralogy, 4th Ed.; De la Beche's Geological Observer; Geology of Canada by Logan and Hunt.)

CIVIL ENGINEERING AND ARCHITECTURE.

Architecture, building, and building materials, and measurement of work.

Bridge construction.

Strength of materials and stability of structure.

Calculation of earth-work in cutting and embankments.

Setting out railway curves and other railway operations.

Road making.

Drainage operations.

Construction of canals, gauging of water-courses, and application of water-power.

Construction of stationary and locomotive steam-engines.

(Weale's Rudimentary Treatise; Haupt's Bridge Construction; Mahan's Civil Engineer; Lardner's Steam-engine and Railway Economy; Practical Mathematics, Chambers's Educational Course.)

DRAWING.

Perspective and projections.

Engineering and Architectural Drawing.